

**MATH 322-001: Advanced Linear Algebra**  
**Syllabus, Fall 2019**

**Course objectives.** Develop a theoretic foundation for Linear Algebra (Math 203) and ability to understand and create proofs in this field.

**Prerequisite.** Grade C or higher for MATH 203 and MATH 290, or equivalent.

**Textbook required.** Friedberg, Insel, Spence, Linear Algebra, 5th edition, Prentice Hall, 2019.

**Material to be covered.** Chapters 1-6 (with some sections omitted).

**Lectures.** TR, 10:30 am–11:45 am, Robinson Hall, Room B106.

**Instructor.** Dr. Valeriu Soltan. Office: Exploratory Hall, Room 4202. Email: [vsoltan@gmu.edu](mailto:vsoltan@gmu.edu)

**Office hours.** TR, 12:00 pm-1:00 pm, or by appointment.

**Homework.** Problems for the homework are given in the course outline (see next page). Although these will not be collected, success in tests and final exam strongly depends on their completing and understanding.

**Tests and exam.** There will be end-of-class quizzes, two midterms, and final exam. All tests are closed-book and closed-notes. Simple calculators are allowed.

**Important days.** Tests (tentatively, September 26 and November 5), fall break (October 15), Thanksgiving recess (November 28), last day of classes (December 5), final exam (December 17, 10:30 am–1:15 pm).

**Grading.** Quizzes are 40% in total, midterms are 16% each, and final exam is 28% of the total score. Your grade for the course is the sum of scores for quizzes, midterms, and final exam. There is no curving, dropping, extra crediting, etc. Equivalence between scores and letters, recommended by GMU, is given in the table below.

A+	A	A-	B+	B	B-	C+	C	C-	D	F
>97	>93	>90	>87	>83	>80	>77	>73	>70	>60	60-0

**Attendance and make-ups.** Each student is expected to come to class regularly. No make-ups for tests are allowed unless you provide a serious written excuse. Excused quizzes and tests should be taken within a timely fashion before the next quiz or test.

**GMU policies on final exams.** The final exam may not be given during the last week of classes. If you need to change the date of your final exam for unusual circumstances or because you have three or more finals scheduled in one day, you have to obtain professor’s approval at least a week prior to the last day of classes. Retaking final exams is not permitted.

Absence from the final exam will not be excused except for sickness on the day of the exam confirmed by physician’s note or for other causes approved by the student’s academic dean or director. If a student missed the final exam due to illness or a family emergency, an incomplete grade (IN) may be assigned provided the student took all three tests with a total score 36 or higher. If absence from the final exam is unexcused, the grade for the course is F.

**Academic integrity and university policies.** Mason is an Honor Code university. See for other policies at <http://universitypolicy.gmu.edu/>. Students are responsible for knowing and following established policies.

**ODS.** If you are a student with a disability and you need academic accommodations, please see me and contact the Office of Disability Services. All academic accommodations must be arranged through this office.

**Religious holydays.** If you observe upcoming religious holidays (see <https://ulife.gmu.edu/religious-holiday-calendar/>), please inform me one week in advance about a possible overlap with a day of quiz, midterm, or final exam.

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**COURSE OUTLINE**

<b>Class Date</b>	<b>Quizzes</b>	<b>Sections</b>	<b>HW Problems</b>
08/27		1.2	1, 8, 11, 12, 13, 18.
08/29		1.3	1, 3, 5, 6, 8, 12, 18, 23.
09/03	Q1 (1.2)	1.4	1, 6, 7, 8, 9, 12.
09/05		1.5	1, 3, 4, 5, 8, 9, 13, 18.
09/10	Q2 (1.4)	1.6	1, 2, 3, 4, 5, 11, 12, 16.
09/12		1.6	
09/17	Q3 (1.6)	2.1	1, 3, 5, 10, 14, 22.
09/19		2.2	1, 2, 3, 5.
09/24		Practice	
<b>09/26</b>		<b>Test 1</b>	<b>Sections 1.2-2.2</b>
10/01		2.3	1, 4, 8, 12.
10/03	Q4 (2.2)	2.4	1, 2, 3, 4, 15, 17.
10/08		2.5	1, 2, 3, 4, 5.
10/10	Q5 (2.4)	3.1	1, 2, 3, 5, 10, 12.
10/15		<i>Fall Break</i>	
10/17	Q6 (3.1)	3.2	1, 2, 3, 4, 5, 6, 8.
10/22		3.3	1, 2, 3, 6, 8.
10/24	Q7 (3.2)	4.1	1, 4, 5, 6, 7, 8, 9.
10/29		4.2	1, 2, 3, 4, 5, 7, 11, 23, 25, 27.
10/31	Q8 (4.1)	Practice	
<b>11/05</b>		<b>Test 2</b>	<b>Sections 2.3-4.2</b>
11/07		5.1	1, 2, 4, 6, 9, 10.
11/12	Q9 (4.2)	5.2	1, 2, 3, 4.
11/14		6.1	1, 8, 9, 10, 11, 17.
11/19	Q10 (5.2)	6.2	1, 2, 7.
11/26		7.1	1, 2, 3.
11/28		<i>Thanksgiving</i>	
12/03		Practice	
12/05		Practice	
<b>12/17</b>		<b>Final exam</b>	<b>Cumulative</b>